REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed January 5, 2004. In the Office Action, the Examiner notes that claims 8-21 are pending of which claims 8-21 stand rejected, and claims 8 and 15 are objected to. By this amendment, claims 8, 12, 15-16, and 19 have been amended and claims 9-11, 13-14, 17-18, and 20-21 continue unamended.

In view of the following discussion, the applicants submit that none of the claims now pending in the application are non-enabling, anticipated, or obvious under the respective provisions of 35 U.S.C. §112, §102, and §103. Thus, the applicants believe that all of these claims are now in allowable form.

It is to be understood that the applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to applicants' subject matter recited in the pending claims. Further, applicants are not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing the instant responsive amendments.

Objections

IN THE DRAWINGS

The Examiner has objected to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5) because they do not include reference sign(s) mentioned in the description. Replacement sheets 1-3 of the drawings are attached. These replacement sheets include the reference sign(s) mentioned in the description but not in the drawings as originally filed.

In particular, the applicants have amended FIG. 1 to include the reference number 100 to identify the interactive information distribution system (see, page 4, line 25); reference number 106 to collectively identify the subscriber equipment, reference numeral 125 to collectively identify the servers (see, page 4, Applicant's specification page 4, line 30); reference number 102 to identify the service provider equipment (see, page 4, line 29); data storage 114 (see, page 5, line 30); paths 116, 118, and 120 (see,

page 5, lines 25-29); and session manager 122 (see, page 11, lines 1-20). The Applicants submit that such changes to the figures do not add any new subject matter.

The Examiner has also objected to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5) because they include reference sign(s) not mentioned in the description. To overcome the Examiner's objection, the specification has been amended to include the reference sign(s) included in the drawings but not mentioned in the description.

In view of applicants' amendments to the specification and drawings, applicants respectfully request that the Examiner's drawing objections be withdrawn.

IN THE SPECIFICATION

The Examiner has objected to the specification "because of the following informalities: ... 'andapparatus' are supposed to be two different words; and the alternative to 'session controller 145' is also the session controller....." Applicants have amended the specification to overcome the Examiner's objections. Therefore, applicants respectfully request that the Examiner's objection be withdrawn.

Furthermore, the Applicants have amended the specification to provide minor spelling, grammatical, and reference numeral changes to conform with the drawings. The Applicants submit that such changes do not add any new subject matter to the specification.

Rejections

35 U.S.C. §112

The Examiner has rejected claims 15 and 16-21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse the rejection.

1. Claim 15

Applicants have amended claim 15 to change the limitation “said transport processor” to “a transport processor.” As such, the Applicants submit that claim 15 now

has proper antecedent basis for a limitation in this claim. As such, the Applicants respectfully request that the rejection be withdrawn.

2. Claim 16

Applicants have amended independent claim 16 to clarify the features that the Applicants consider as being inventive. In particular, the Applicants have amended independent claim 16 to recite:

> "In an information distribution system including provider equipment and subscriber equipment, said provider equipment communicating content to said subscriber equipment via a distribution network, a provider method comprising the steps of:
>
> establishing a session with a subscriber;
>
> generating a playlist for said subscriber if a playlist does not presently exist, said playlist determining a sequence of content streams to be retrieved from a server and coupled to a transport processor for distribution to said subscriber via said distribution network, said playlist further identifying reverse and fast-forward streams associated with said content streams;
>
> in the case of said subscriber transmitting a playlist modification command, modifying said playlist in response to said playlist modification command;
>
> in the case of said subscriber transmitting a content stream modification command, modifying said content stream in response to said content stream modification command;
>
> determining a next content stream to be provided to said subscriber from said playlist;
>
> closing a present content stream being retrieved from a sever and provided to said transport processor; and
>
> communicating said next content stream to be provided to said server to a server controller, said server controller responsively causing said next content stream to be provided to said transport processor upon the termination of the present content stream provided to said transport processor."

The Applicants have amended claim 16 to clarify that the method first determines a next content stream to be provided to the subscriber from the playlist, and then closes a present content stream being received from a server and provided to the transport processor.

As such, the Applicants submit that claim 15 and 16 are not indefinite and fully satisfy the requirements under 35 U.S.C. § 112 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

35 U.S.C. §102

The Examiner has rejected claims 8-10, 12-14 and 16-21 under 35 U.S.C. §102(e) as being anticipated by Duso et al. (5,892,915, hereinafter "Duso"). Applicants respectfully traverse the rejection.

The Applicants have amended independent claims 8 and 16 to include features that the Applicants consider as being inventive. In particular, the Applicants' independent claims 8 and 16, as amended, recite:

> "8. In an information distribution system including provider equipment and subscriber equipment, said provider equipment communicating to said subscriber equipment information streams including content requested by said subscriber equipment, an apparatus comprising:
>
> a session manager, for interacting with said subscriber equipment and maintaining a playlist, said playlist defining at least one content stream to be provided to said subscriber equipment, said playlist further identifying reverse and fast-forward streams associated with said at least one content stream;
>
> a server, for storing content streams; and
>
> a server controller for retrieving from said server, content streams defined by said playlist, said content streams being sequentially provided to said subscriber equipment;
>
> said session manager modifying said playlist in response to playlist modification commands received from said subscriber equipment." (emphasis added).
>
> 16. "In an information distribution system including provider equipment and subscriber equipment, said provider equipment communicating content to said subscriber equipment via a distribution network, a provider method comprising the steps of:
>
> establishing a session with a subscriber;
>
> generating a playlist for said subscriber if a playlist does not presently exist, said playlist determining a sequence of content streams to be retrieved from a server and coupled to a transport processor for distribution to said subscriber via said distribution network, said playlist further identifying reverse and fast-forward streams associated with said content streams;

in the case of said subscriber transmitting a playlist modification command, modifying said playlist in response to said playlist modification command;

in the case of said subscriber transmitting a content stream modification command, modifying said content stream in response to said content stream modification command;

determining a next content stream to be provided to said subscriber from said playlist;

closing a present content stream being retrieved from a sever and provided to said transport processor; and

communicating said next content stream to be provided to said server to a server controller, said server controller responsively causing said next content stream to be provided to said transport processor upon the termination of the present content stream provided to said transport processor." (emphasis added).

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindenmann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears Roebuck & Company, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Duso reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Duso reference discloses "in the "paused" state 408 for a stream, if a "VCR controls" flag is set and a "pause only" flag is not set, then the video file server may accept a "fast forward" command, a "fast reverse" command, a "seek" command, or a "rewind" command. The "fast forward" command causes the playing of the stream to be resumed in a forward direction at a fast rate, placing the stream in a "fast forward" state 409. A "pause" command for the stream causes the stream to return from the "fast forward" state 409 to the "paused" state 408. The "fast reverse" command causes the playing of the stream to be resumed in a reverse direction at a fast rate, placing the stream in a "fast reverse" state 410. A "pause" command for the stream causes the stream to return from the "fast reverse" state 410 to the "paused" state 408." (See, Duso, col. 38, lines 7-21). However, nowhere in the Duso reference is there any

teaching or suggestion of the feature "said playlist further identifying reverse and fast forward streams associated with said at least one content stream."

Specifically, the Applicants' invention provides that "each of the servers 125 stores a plurality of content streams, such as video content streams including associated audio content. It is noted that these content streams may include auxiliary program information, such as fast forward (FF) and rewind (REW) tracks or streams. A FF track comprises, effectively, a temporally sub-sampled version of a main program of the content stream. A REW track comprises, effectively, a reverse-ordered and temporally sub-sampled version of the main program of the content stream. Such FF and REW tracks are suitable for enabling FF and REW functionality in the information distribution system 100 of FIG. 1. That is, a subscriber may request that a presently presented program be "fast forwarded" or "rewound" to some future or previous point in the program at a rate of, e.g., 5 to 11 times the normal play rate. The appropriate server 125 responsively begins streaming the FF or REW track to the subscriber in response to the request." (See, Applicants' specification page 5, lines 31 to page 6 line 10).

That is, the Applicants' invention provides separate fast-forward and rewind content streams that are associated with a selected play content stream. Nowhere in the Duso reference is there any teaching or suggestion that rewind and fast forward tracks are stored on the storage device of the servers. Rather, the fast forward and fast reverse functions of the Duso reference are provided by increasing the transport rate at which the content is sent from the headend to the subscriber equipment. Therefore, the Duso reference fails to teach <u>each and every element</u> of the claimed invention, as arranged in the claim.

As such, the applicants submit that independent claims 8 and 16 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claims 9-10, 12-14 and 17-21 depend, either directly or indirectly, from independent claims 8 and 16 and recite additional features thereof. As such, and at least for the same reasons as discussed above, the applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §102 and are

patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

35 U.S.C. §103

Claim 11

The Examiner has rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over Duso in view of Katinsky et al. (6,452,609, hereinafter "Katinsky"). Applicants respectfully traverse the rejection.

Claim 11 depends from independent claim 8 and recites additional features thereof. In particular, Applicants' claim 11 recites in part:

> "The apparatus of claim 9, wherein:
> a session manager, for interacting with said subscriber equipment and maintaining a playlist, said playlist defining at least one content stream to be provided to said subscriber equipment, said playlist further identifying reverse and fast-forward streams associated with said at least one content stream."

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 (Fed. Cir. 1986). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). Neither Duso nor Katinsky, either singly or in combination, teaches the applicants' invention as a whole.

As discussed above, the Duso reference merely discloses that the "fast forward" command causes the playing of the stream to be resumed in a forward direction at a fast rate, placing the stream in a "fast forward" state, and the "fast reverse" command causes the playing of the stream to resume in a reverse direction at a fast rate, placing the stream in a "fast reverse" state. (See, Duso, col. 38, lines 12-19). Nowhere in the

Duso reference is there any teaching or suggestion of "said playlist further identifying reverse and fast forward streams associated with said at least one content stream." Therefore, the Duso reference fails to teach or suggest the Applicants' invention as a whole.

Furthermore, the Katinsky reference fails to bridge the substantial gap as between the Duso reference and the Applicants' invention. In particular, the Katinsky references discloses "the "next" button 106 works with the play list 50 in the sequencer 14 to cause the currently playing media object to stop and to cause the media object represented by the next checked media icon in the play list 50 to start playing. Similarly, the previous button 104 causes the currently playing media object to stop and causes the media object represented by the previous checked media icon in the play list 50 to start playing. (See, Katinsky, col. 6, lines 19-26). Even if the two references could somehow be operably combined, the combination would merely teach a "next" button works with the playlist in the sequence to cause of the currently playing media object to stop and to cause the media object represented by the next checked media icon in players to start playing, and increasing the rate of the content stream to produce either a fast forward or fast reverse of such content stream. Therefore, since the combined references fails to teach or suggest "said playlist further identifying reverse and fast forward streams associated with said at least one content stream," the combination of Duso and Katinsky fails to teach or suggest the Applicants' invention as a whole.

As such, the applicants submit that claim 11 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

Claim 15

The Examiner has rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Duso in view of Day et al. (5,996,015, hereinafter "Day"). Applicants respectfully traverse the rejection.

Claim 15 depends from independent claim 8 and recites additional features thereof. In particular, Applicants' claim 15 recites in part:

> "The apparatus of claim 8, wherein... a session manager, for interacting with said subscriber equipment and maintaining a playlist, said playlist defining at least one content stream to be provided to said subscriber equipment, said playlist further identifying reverse and fast-forward streams associated with said at least one content stream. " (emphasis added).

Neither Duso nor Day, either singly or in combination, teaches the applicants' invention as a whole. As discussed above, Duso merely discloses "said playlist further identifying reverse and fast forward streams associated with said at least one content stream."

Furthermore, the Day reference fails to bridge the substantial gap as between the Duso reference and the Applicants' invention. In particular, the Day reference discloses the main functional server units 107, 109, and 111 may be arranged in separate machines as illustrated for larger systems or maybe combined in one server device as illustrated in FIG. 2 for other systems. The multimedia server can store and deliver real-time, streamed MPEG compressed audio and video file content. (See, Day, col. 3, lines 21-26).

However, even if the two references could somehow be operably combined, the combination would merely disclose striping multimedia data across a plurality of servers and providing fast forward or reverse functions to a user by increasing the transfer rate in which a content stream is sent. Since neither the Duso nor the Day reference teach or suggest "said playlist further identifying reverse and fast forward streams associated with the said at least one content stream," the combined references fail to teach or suggest the Applicants' invention as a whole.

As such, the applicants submit that claim 15 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the applicants respectfully request that the rejection be withdrawn.

PRIOR ART MADE OF RECORD BUT NOT RELIED UPON

The references cited and not relied upon have been studied, and it is submitted that their disclosures are not sufficiently pertinent to the claimed invention to warrant a

detailed statement of the manner in which the present claims distinguish patentably over such references.

CONCLUSION

The applicants believe all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of an adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Steven M. Hertzberg, Esq. or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

4/5/04

Steven M. Hertzberg, Attorney
Registration No. 41,834
(732) 530-9404

Moser, Patterson & Sheridan, LLP
Attorneys at Law
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702

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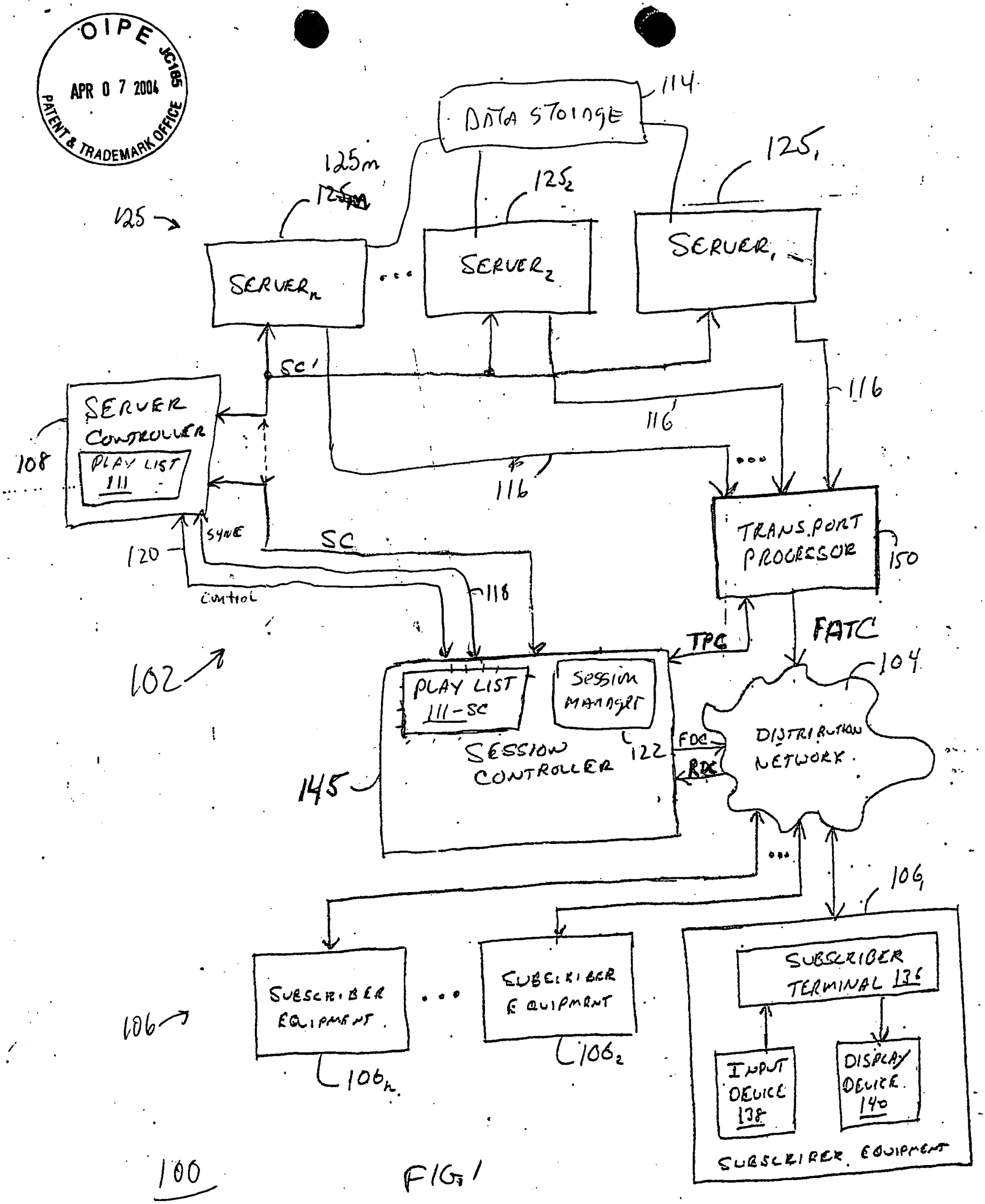

FIG. 1